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**OFFICE OF THE ADJUTANT GENERAL**  
**WASHINGTON, D.C. 20310**



IN REPLY REFER TO

AGAM-P (M) (17 Apr 67) FOR OT

24 April 1967

**SUBJECT: Operational Report - Lessons Learned, HQ, 145th Combat Aviation Battalion**

**TO: SEE DISTRIBUTION**

1. Forwarded as inclosure is Operational Report - Lessons Learned, Headquarters, 145th Combat Aviation Battalion for quarterly period ending 31 January 1967. Information contained in this report should be reviewed and evaluated by CDC in accordance with paragraph 6f of AR 1-19 and by CONARC in accordance with paragraph 6c and d of AR 1-19. Evaluations and corrective actions should be reported to ACSFOR OT within 90 days of receipt of covering letter.

2. Information contained in this report is provided to the Commandants of the Service Schools to insure appropriate benefits in the future from lessons learned during current operations, and may be adapted for use in developing training material.

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*Kenneth G. Wickham*

JAN 22 1968

KENNETH G. WICKHAM

Major General, USA

The Adjutant General

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DEPARTMENT OF THE ARMY  
HEADQUARTERS, 145TH COMBAT AVIATION BATTALION  
APO San Francisco, 96227

AVGC-CD

7 February 1967

SUBJECT: Operational Report Lessons Learned (RCS CSFOR-65) (U)

TO: See Distribution

(U) Under provisions of AR 1-19, dated 26 May 1966, USARV Reg 870-2, dated 19 July 1966 and 12th Combat Aviation Group Letter, SUBJECT: Operational Report of Lessons Learned, dated 27 September 1966, the Quarterly Operational Report of Lessons Learned is hereby submitted.

FOR THE COMMANDER:

*Lawrence A. Bell*

LAWRENCE A. BELL  
Major Infantry  
Adjutant

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## TABLE OF CONTENTS

### SECTION I

#### SIGNIFICANT UNIT ACTIVITIES

A. GENERAL	Page 1
B. MISSION	Page 1
C. ORGANIZATION	Page 1
D. COMMAND	Page 2
E. PERSONNEL	Page 3
F. INTELLIGENCE	Page 4
G. OPERATIONS	Page 5
H. TRAINING	Page 7
I. LOGISTICS	Page 8
J. SIGNAL	Page 10
K. SAFETY	Page 11
L. MEDICAL	Page 12

### SECTION II

#### OBSERVATIONS (LESSONS LEARNED)

##### PART I

A. PERSONNEL	Page 13
B. OPERATIONS	Page 13
C. TRAINING	Page 18
D. INTELLIGENCE	Page 19
E. LOGISTICS	Page 20
F. SIGNAL	Page 23
G. SAFETY	Page 25
H. MEDICAL	Page 25

##### PART II

RECOMMENDATIONS	Page 27
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⑥ Lessons  
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DEPARTMENT OF THE ARMY  
HEADQUARTERS, 145TH COMBAT AVIATION BATTALION (U) ③  
APO San Francisco, 96227

AVGC-CD

7 February 1967

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SUBJECT: ⑨ Operational Report for Quarterly Period Ending 31 January 1967.  
Reports Control Symbol CSFOR-65 (U)

TO: See Distribution

⑪ 7 Feb 67

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SECTION I

⑫ 33p.

SIGNIFICANT UNIT ACTIVITIES

A. (U) GENERAL: The 145th Combat Aviation Battalion has been fully committed to combat assault and direct combat support operations throughout the period of this report.

B. (U) MISSION: To augment the aviation support capability available to II FFORCE V and the Republic of Vietnam Forces operating within the III Corps ARVN Tactical Zone.

C. (C) ORGANIZATION:

1. The 335th Aviation Company (Airmobile Light) was assigned to the 145th Combat Aviation Battalion on 15 January 1967 and subsequently redesignated the 335th Assault Helicopter Company by VCOG, 1st Aviation Brigade.

2. Organization of the 145th Combat Aviation Battalion during the reporting period included the following units, headquarters located as indicated:

a. 145th Combat Aviation Battalion Headquarters, Bien Hoa.

b. Headquarters and Headquarters Detachment, Bien Hoa.

(1) Pathfinder Detachment.

(2) Security Detachment.

(3) 87th Quartermaster Detachment.

c. 68th Assault Helicopter Company, Bien Hoa.

(1) 391st Transportation Detachment.

(2) 282nd Signal Detachment. Downgraded at 3 year intervals  
Declassified after 12 years

(3) 430th Medical Detachment. DOD Dir 5200.10

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- d. 71st Assault Helicopter Company, Bien Hoa.
  - (1) 151st Transportation Detachment.
  - (2) 94th Signal Detachment.
- e. 74th Reconnaissance Airplane Company, Phu Loi.
  - (1) 563rd Transportation Detachment.
  - (2) 320th Signal Detachment.
- f. 118th Assault Helicopter Company, Bien Hoa.
  - (1) 573rd Transportation Detachment.
  - (2) 198th Signal Detachment.
  - (3) 93rd Medical Detachment.
- g. 184th Reconnaissance Airplane Company, Phu Loi.
  - 243rd Signal Detachment.
- h. 334th Armed Helicopter Company, Bien Hoa.
  - (1) 571st Transportation Detachment.
  - (2) 774th Medical Detachment.
- i. 335th Assault Helicopter Company, Bien Hoa.
  - (1) 166th Transportation Detachment.
  - (2) 234th Signal Detachment.
  - (3) 25th Medical Detachment.

3. In addition, the 74th Reconnaissance Airplane Company has sub-elements located at Duc Hoa, Xuan Loc, and Lam Son.

D. (U) COMMAND: Significant changes of command in the 145th Combat Aviation Battalion during this period were:

- 1. LTC Howard M. Moore assumed command of the battalion from LTC Walter F. Jones on 1 December 1966.
- 2. Captain James S. Hahn assumed command of the Headquarters and Headquarters Detachment from Captain Darel S. Johnson on 27 January 1967.
- 3. Major William T. Kaser assumed command of the 68th Assault Helicopter Company from Major Edward B. Covington III on 14 December 1966.
- 4. Major James M. Caudill Jr. assumed command of the 74th Reconnaissance Airplane Company from Major Richard W. Buckland on 10 December 1966.

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5. Major Joseph C. Boggs assumed command of the 118th Assault Helicopter Company from Major George C. Owens on 1 November 1966.

6. Major Gordon F. Ferris assumed command of the 334th Armed Helicopter Company from Major Floyd C. Guber on 3 January 1967.

### E. (C) PERSONNEL:

1. (U) Administration: The major problem in personnel continues to be the late arrival of assignment instructions for rotating personnel. This presents a significant morale problem for personnel of the battalion.

2. (U) Awards and Decorations: During this quarter the battalion received 3,334 awards. Due to the requirement from Department of the Army for additional information on each awardee there has been a complete change in the awards recommendation forms. The new basic award form, USARV Form 157R, has placed few additional burdens on the units and seems to be no problem. However, the discontinuing of the 1st Aviation Brigade Form 21 and substituting Form 21R in its place, is proving to be a great problem. Due to the tremendous volume of Air Medals earned by the aviators in this unit, it is impractical to have to furnish the detailed information required for each individual Oak Leaf Cluster. A new system instituted in the battalion requires a letter of transmittal on posthumous awards listing what awards are attached and also what awards are pending at higher headquarters. This enables higher headquarters to insure that the next of kin will receive all awards in one presentation.

3. (U) Special Services: Changes in special services ordering procedures drastically slowed delivery of requisitioned supplies. This situation is just beginning to ease and should allow company athletic and recreation programs to proceed with more significant results in the coming quarter. Construction for the quarter included two volleyball courts, a basketball court and a badminton court. An outdoor theater for enlisted personnel in Project 78 is presently under construction. During this quarter, the first coordinated program of battalion-wide planning of special service facilities was initiated. Plans for a battalion recreation area have been drawn up and land has been obtained upon which construction of the first phase is to begin in early February.

4. (U) Unit Designation and Attachments: USARV General Orders Number 237 dated 17 January 1967 assigned the 335th Aviation Company (Airmobile Light) to the 1st Aviation Brigade with an effective date of 15 January 1967. VCOG, 1st Aviation Brigade, assigned the unit to the 145th Combat Aviation Battalion. The 335th had previously been attached to the 173rd Airborne Brigade (Separate) and will continue to be located in the 173rd area of the Bien Hoa Air Base complex. The battalion personnel section handled the personnel problems by sending a team out to the company to effect the transfer.

5. (U) Civic Action: The civic action program continued to receive command emphasis. A new position was created within the battalion headquarters to have one officer handle both public information and civic action. This officer will be able to place much more emphasis on the program and assist the companies to a degree not possible in the past. This past quarter saw the establishment of MEDCAP II and related activities in the village of Binh Co and An Hoa Hung. The village of Binh Co is particularly

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significant as it is located on the border between two provinces and is in an area which has seen few American troops. The village had been Viet Cong infested; however, since the advent of MBDCAP II, the people's attitude towards Americans and the GVN has undergone a marked transformation.

6. (U) Information Program: All units are holding Commander's Call weekly instead of monthly. The battalion reproduces selected materials from higher headquarters in order that maximum distribution may be made. Letters of appreciation received at battalion level, command announcements, and directives from higher headquarters fall into this category. The program has proved to be quite effective in increasing the morale of the men.

7. (U) Public Information: During this quarter, the following news items were dispatched:

a. Feature photographs:	10
b. Feature stories:	22
c. Home town news releases:	42
d. Home town news release photos:	8

This battalion now has a full time information officer/civic action officer which allows more emphasis to be placed on both programs. The battalion has also received more recognition by a greater usage of AFRS and more stateside releases.

8. (U) Education: The battalion education program was established during the quarter and is proving to be quite successful as the men become aware of it and become convinced of the benefits to be derived through the program. During the quarter, 10 men applied for USAFI correspondence courses and 12 men applied for either GED high school or college comprehensive examinations. Some officers have also applied for correspondence courses offered by the various service schools.

9. (C) Personnel Losses and Gains: Actual and Projected.

a. Officers	Gain	Loss
January	26	4
February	5	9
March	29	25
b. Enlisted	Gain	Loss
January	79	76
February	64	57
March	121	113

F. (C) INTELLIGENCE:

1. (C) Mining of Landing Zones: On 9 December 1966, a number of pressure or mechanically fuze blast mines were encountered by the 68th Assault Helicopter Company. These mines were not set off by the aircraft during their first lift into the LZ; however, on the second lift, one mine was activated by direct contact with the triggering device, the second by rotor wash. Both aircraft were damaged by the blast effect including

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4



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9 personnel who were stunned momentarily. No shrapnel was detected. Further investigation by ground support troops revealed the mine to be an anti-tank type estimated to contain 20-30 pounds of explosive and cylindrical in shape. The mine was buried flush with the ground with a vertical triggering rod, eighteen inches long, attached to the fuze device. The mine appears to be erratic as evidenced by the passage of several helicopters over the same areas prior to the detonation. The mines were not command detonated.

2. (C) Air Photo Coverage: The US Air Force air photo sections maintain a chart of missions previously run including area, date and mission number. Normally the negatives for these flights are stored at a control location and can be reprinted on a twenty-four hour notice. Supported ground units should check these charts for possible coverage before requesting an air photo mission. The savings in time, equipment and personnel are readily apparent.

## G. (C) OPERATIONS:

1. (C) Combat Operations: The battalion is committed daily to tasks varying from general support supply missions to reinforced battalion size combat assault operations. Daily requirements for UH-1D helicopters have been 12 per airlift company; 10 lift ships, one (1) command and control helicopter and one (1) training helicopter. Effective 26 January 1967, the daily requirement was changed to require that the command and control helicopter, when not committed, be available for single ship missions. This change of requirement was necessitated by the influx of new ground units in-country requiring helicopter support. Battalion and company controlled combat assaults employ a command and control helicopter that carries the airmobile force commander, air mission commander, artillery representative and a representative for control of close air support. Varied flight routes and time schedules are being stressed to improve safety and security of action during combat assaults. The battalion and company size combat assault operations vary from operations into landing zones with full preparation by artillery, close air support, helicopter gunships and helicopter troop carrier suppression, to combat assaults with no preparation.

## 2. (C) Physical Security:

a. The 145th Combat Aviation Battalion remains responsible for portions of the inner perimeter of both Bien Hoa and Phu Loi airfields. Construction on the Bien Hoa Air Base has required that several bunkers be relocated. These bunkers will be completed as facilities construction is completed in the 145th area. During the last airbase security meeting, the VMAF airbase commandant indicated that the 145th would be given a larger sector of the inner perimeter as a responsibility. There have been no instructions received on the proposed increase. Monthly alerts are being conducted to insure a rapid reaction to any alert.

b. The 145th Combat Aviation Battalion is responsible for four 24 hour guard posts and three 12 hour guard posts on the Honour-Smith Compound. Guard instructions for these seven posts have been written and increased emphasis is being placed on the security of the compound. In event of a requirement for the defense of the Honour-Smith Compound, the 145th Combat Aviation Battalion assumes operational control of all units on the compound

CONFIDENTIAL  
5

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and conducts the defense of the compound. During this quarter, the Honour-Smith Compound lost the 44th Signal Battalion as a tenant. The defense plans of the compound were re-written. The 1st Platoon of the 552nd MP Company is now responsible for the vacated defense sector.

c. Anti-mortar revetments for 94 helicopters have been completed. Work continues in an effort to improve the existing revetments. 10

d. MTOE 256F has been previously submitted for approval, in which security personnel to adequately guard aircraft and physical property were included. Approval of this MTOE will release the badly needed aviation personnel from guard duties.

### 3. Flight Standardization:

a. An attempt has been made to prevent accidents due to "Loss of RPM on take-off due to over gross weight for existing atmospheric conditions". A campaign has been launched and is being closely monitored to assure compliance with the requirements of USARV Regulation 385-30, Subject: Go-No-Go Placards.

b. Emphasis is being placed on educating all aviators on correct starting and operating procedures for the T-53 engine. This effort is aimed at extending the short time change life of this critically short item.

c. A major effort is being made to train sufficient instructor pilots in each company to enable them to conduct standardization rides and orientations without decreasing operational capability.

d. Standardization instructor pilots are conducting a "Know Your Aircraft" campaign. This effort should make for safer operations due to a greater knowledge of emergency procedures, limitations and capabilities.

e. The standardization officer has established a close working relationship with the aviation safety officer. This close coordination will help eliminate accidents by emphasizing training in avoiding conditions which may cause accidents.

### 4. (C) Special Missions:

#### a. Firefly:

(1) This mission involves the employment of two armed helicopters, one with a cluster of C-123 landing lights, and a UH-1D with a door mounted .50 caliber machine gun. The Firefly is employed along rivers, canals, and roads as night interdiction of Viet Cong supply routes.

(2) There is a definite requirement for additional Firefly teams. This battalion has trained fire teams within this command. Plans are being made to assist other battalions in training Firefly teams. There were five Firefly cancellations due to weather during this quarter, as compared to 13 in the last quarter. This improvement can be attributed

CONFIDENTIAL  
6

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to the better flying weather associated with the dry season.

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b. Border Patrol: This battalion continues the daily mission of visual reconnaissance of the Vietnamese-Cambodian border along the primary enemy infiltration and supply routes. O-1 (Birdog) aircraft are used for this mission.

c. River Patrol: This mission provides for overhead cover and visual reconnaissance of the shipping channel from Saigon port to the South China Sea during daylight hours. This mission is accomplished by two light fire teams: one on stand-by at Bien Hoa and one on station, and by two O-1 airplanes: one on stand-by at Phu Loi and one on station. This mission was initiated to stop the VC attacks on ships in the shipping channel. There is constant overhead reconnaissance by the O-1. The fire team on station is available at the Nha Be naval facility or is airborne at times when shipping is in the channel.

d. Smoke Mission: This battalion has been using the helicopter mounted smoke generator. This generator has proven very effective in satisfying smoke screening requirements. This battalion expects to be issued eight smoke generators in the near future.

e. XM-47 Mine Dispersing System: This system was employed on routine missions late in January 1967. The results have not, as yet, been received from the supported units in the field. Initial impressions have been encouraging; however, malfunctions with the present stock of XM-2 canisters have been prevalent.

#### H. (U) TRAINING:

1. (U) Mandatory Training: Mandatory training is being accomplished during breaks between flights and at night. Instrument flight training, Decca training, and aerial gunnery training is accomplished enroute to and from missions, primarily during single ship missions.

#### 2. (U) Assigned Training Tasks:

a. Training of three VNAF aviators started 7 November 1966 and will be completed on 6 February 1967. The purpose of this training is to train VNAF aviators in the UH-1, prior to the aircraft becoming part of the Vietnamese inventory.

b. Training on tactics and employment of Firefly equipment has received command emphasis. Key personnel from the armed platoons of each airlift company received classroom and practical training from the 334th Armed Helicopter Company. Training for units of the 145th Combat Aviation Battalion is complete. Training for companies of the 11th Combat Aviation Battalion was started in January 1967.

c. Department of the Army personnel from Picatinney Arsenal conducted cadre training on the XM-47 Mine Dispersing System. Unit training programs have been established using instructor personnel trained by Picatinney Arsenal.

d. First aid has received command emphasis. Units within the command were presented classes on this subject by the flight surgeons. As

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7

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new personnel arrive they will receive this training.

e. All assigned personnel were required to attend driver training and pass an examination in order to retain their military drivers license. This recurring training should reduce the vehicle accident rate within this command.

f. Training Memorandum 66-5, Headquarters, 145th Combat Aviation Battalion, has been published which lists the mandatory training subjects which will be conducted at unit level. Frequency, authority and guidance are outlined.

## I. (C) LOGISTICS:

### 1. (C) Summary of S-4 Activities:

#### a. Refueling and Prestock Operations.

(1) On 21 November 1966, the responsibility for the operation of III ARVN Corps Prestock point at Phu Loi was assumed by the 1st Infantry Division. Fuel dispensing equipment at Phu Loi was returned to Bien Hoa with the exception of one aviation gas tanker. This tanker was retained at Phu Loi ARVN airfield by the 74th Reconnaissance Airplane Company to refuel O-1 aircraft stationed at Phu Loi ARVN. Fuel and ammunition on hand was transferred to 1st Infantry Division.

(2) On 21 November 1966, the responsibility for the operation of the prestock point at Tay Ninh was assumed by the 196th Light Infantry Brigade and 1st Logistical Command Forward Supply Point at Tay Ninh. Fuel tankers were returned to Bien Hoa for extensive maintenance. One miniport was repositioned to Xuan Loc and one miniport was returned to Bien Hoa. Fuel and ammunition at Tay Ninh were transferred to the 196th Light Infantry Brigade.

(3) On 31 December 1966, the miniport at Hon Quan was repositioned to Nha Be. Responsibility for operation of the prestock point at Hon Quan has not been accepted by any American unit in that area. On 2 January 1967, III ARVN Corps Advisory Group declared the Hon Quan prestock point to be closed. Fuel tankers and other refueling equipment have not yet been removed from Hon Quan.

(4) On 14 January 1967, the miniport at Nha Be was repositioned to Tan An to support the 25th Infantry Division.

#### b. Construction.

(1) Tent City was completed and occupied by personnel vacating Bailey Compound during the period 15 November 1966 through 10 December 1966.

(2) On 27 December 1966, the road past the mess halls operated by 68th Assault Helicopter Company and 334th Armed Helicopter Company was treated with penoprim for dust control.

(3) The two maintenance hangars for Project 521 were received in-country during December 1966. The helicopter parking ramp is

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scheduled to be completed during January. Estimated completion date of maintenance hangars and operations buildings is April 1967.

2 13 (4) Treatment of roads in Project 78D area with DBST is scheduled to be completed during February 1967.

(5) Construction of billeting and administrative facilities for the 71st and 118th Assault Helicopter Companies has progressed at an extremely slow rate during the period covered by this report. Construction was initiated on 8 October 1966. During the period 8 October to 30 November 1966, construction efforts consisted of grading, hauling fill for six barracks sites, and pouring four concrete slabs. Vertical construction was initiated on 30 November 1966. During the period 30 November 1966 through 2 December 1966, first floor studs were placed for three barracks. Construction was then halted due to lack of 2"x4" and 2"x12" materials. On 12 and 13 December, a concrete slab was poured for a fifth barrack. On 17 December 1966, this battalion was advised that all future construction would be on a self-help basis with engineer technical assistance. On 20 December 1966, design of the buildings was modified so that construction could proceed with available materials. Construction of these buildings has proceeded at an acceptable rate since 20 December 1966.

(6) On 23 November 1966, a letter was forwarded through channels to CG, USARV, ATTN: Engineer, requesting that the North-South Runway (Birdcage) be resurfaced as per previous agreements between the US Army, VNAF, and USAF.

(7) On 30 November 1966, 18th Engineer Brigade granted approval for construction of additional administration and supply facilities for the 71st and 118th Assault Helicopter Companies. Total facilities currently approved for construction is now 2,000 square feet for each company.

(8) Construction of aircraft parking revetments at existing facilities was completed during the reporting period.

(9) Construction of semi-permanent billeting and administrative facilities for the 74th Reconnaissance Airplane Company at Phu Loi was initiated during the reporting period. Completion of this construction is anticipated during the next quarter.

(10) Site preparation for semi-permanent facilities for the 184th Reconnaissance Airplane Company was initiated during the reporting period. It is anticipated that some construction will be initiated during the next quarter.

### 2. (U) Supply.

a. On 31 December 1966 the 145th Combat Aviation Battalion received 8 each kenco fuel pumps from S-4, 12th Combat Aviation Group. These pumps are only equipped with Bendix Go-No-Go fuses and are not acceptable for refueling helicopters.

b. On 16 January 1967, the 145th Combat Aviation Battalion received 10 each 30-40 GPM fuel pumps from S-4, 12th Combat Aviation Group. These pumps were retained by 145th POL Section.

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c. On 13 December 1966, 2 each 10,000 gallon tanks were received from 1st Log Command. One tank is being retained at Bien Hoa and one was positioned at Duc Hoa.

d. The 145th Combat Aviation Battalion continues to support five (5) III ARVN Corps Prestock Points by requisitioning Class V supplies and providing and maintaining fuel storage and dispensing equipment at these locations. Transportation for Class V supplies is provided by III ARVN Corps Advisory Group and Class III supplies are requisitioned and transported to the prestock points by III ARVN Corps Advisory Group.

e. During the reporting period the 145th Combat Aviation Battalion received the mission of supporting the 25th Infantry Division with fuel dispensing equipment, trucks to transport the equipment to any location directed by 12th Combat Aviation Group, and personnel to operate the equipment.

f. Necessary materials to construct aircraft parking revetments for Project 521 were received from 1st Log Command on 5 January 1967.

## 3. (C) Aircraft Maintenance.

a. During this quarter the battalion flew approximately 40,300 hours. The average flight time per aircraft was about 70 hours. The average aircraft availability was about 80%. The UH-1B, C, and D helicopters have required more replacement parts than the supply system has been able to support, because of high flying hour rates, combat damage, and accidents.

b. UH-1 fuel boost pump failures and 1964-65 Model "540" rotor systems have continued to be maintenance and supply problem areas. Some parts of the 540 rotor system are not identified in appropriate TM 55 series publications nor on the AVSCOM temporary parts lists at depot. Special processing of requisitions has been necessary to overcome these problems.

c. Complete consolidation of the maintenance support detachments and company service platoons was completed during this quarter. Implementation of this program helps to relieve the problems created by personnel shortages and low skill levels.

d. A large percentage of the UH-1 fleet has passed through the 1100 hour periodic inspections. This seems to be the time when the minor unscheduled maintenance begins to plague our units. A good example is constant problems with leaking and failing hydraulic control systems. The O-1 airplanes are being rotated through the IROAN program on a regular schedule and are operating at high availability rates.

## J. (C) SIGNAL:

1. (C) New Series FM Radios: During this reporting period a major communications problem has been overcome. This solution resulted from the issue of the new VRC-12 radios. All assigned companies are now equipped with these FM radios which are capable of operating in the higher frequency spectrum, where an unlimited number of usable frequencies are available. The VRC-12 series of radios offer definite advantages over the old series FM ground radios. Greater range, less maintenance, compact size,

CONFIDENTIAL  
10

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and noise free operation are just a few of these desirable features.

15

2. (C) SOI Revision: Also accomplished during this period was a complete changeover in contents and system of publishing and distribution of SOI's. Through joint effort between the 12th Group and 145th Battalion Signal Officers, it was decided that 12th Group would assume the responsibility for publishing and distributing the new, streamlined SOI, tailored to size for use in the cockpit. The contents of this new SOI are in the form of standard extracts commonly used by all units assigned to 12th Group. This change will eliminate much confusion and many complaints from pilots throughout this command concerning the difficulty in using the previous III Corps and 12th Group SOI's. The battalion SOI, previously cluttered and cumbersome, is now uniform in format and easy to revise.

3. (C) Avionics Retrofit: The avionics retrofit program is now in progress. All in-country aircraft are undergoing standard configuration changes and are being retrofitted with the new airborne radio systems. The conversion to the new UHF (ARC-51BX) and (ARC-54) radios, which replace the ARC-44 in the O-1 Birdog aircraft, allows these aircraft to communicate with supported ground units operating with new VRC-12 family of radios.

4. (C) Air Force Dial System: The 1877th Commo Squadron, Bien Hoa Air Base has started installation of an integrated, manual switchboard (ATC-7) to be used on an interim basis to supplement the present 400 line exchange. This system allows for 300 more circuits and will temporarily relieve the present saturation on the telephone system, until activation of a permanent 1500 line automatic exchange in April 1967. Approximately 25 to 30 percent of the present telephone lines have been converted to the expansion system. This provides the 145th Combat Aviation Battalion units, located at Bien Hoa Air Base, with thirty more dial telephones, which greatly lessens the load placed on the 145th Avn Bn switchboard. It is anticipated that the 145th tactical switchboard (Rotor) will be eliminated when Project 78 is completed, as the Air Force will then provide telephone communications for all units located at the air base.

### K. (U) SAFETY:

1. Accidents, Incidents, and Losses: During the reporting period the 145th Combat Aviation Battalion Safety Officer reviewed, analyzed, and recorded 13 accidents, 16 incidents, five forced landings, and one precautionary landing. The safety officer conducted safety inspections of operational areas with particular emphasis on safe handling and storage of ammunition and loading areas. One inspection was conducted of the Phu Loi airfield to determine progress on the requested improvements to that installation.

#### 2. Significant Events During This Quarter:

a. A major effort to insure timely and accurate reporting of accidents, incidents, and downed aircraft is in effect.

b. A tragic accident occurred during this period when a UH-1D disintegrated in flight with eight personnel on board. The findings of the accident board are not complete, but it has been determined that the synchronized elevator control rod had become disconnected from the aft bell crank. An inspection was made of all UH-1 type aircraft in the battalion

CONFIDENTIAL  
11

UNCLASSIFIED

to determine the condition of the synchronized elevator control linkage.

L. (U) MEDICAL:

16

SUMMARY OF MEDICAL ACTIVITY

1. (U) During the month of November 1966, all medical support units of the 145th Combat Aviation Battalion were consolidated into one building, now referred to as the 145th Combat Aviation Battalion Dispensary. Through the consolidation of equipment and personnel, a much higher standard of support has been achieved. This facility now has sufficient personnel and equipment for completing Class III flight physicals and other physicals, with the exception of X-ray. Before the consolidation of these medical units, Class III flight physicals were on a large back-log due to lack of adequate facilities within the battalion. This back-log is now being rapidly eliminated. This consolidation of support has also made possible the support of combat operations on a much larger scale. We are now able to send adequate personnel and equipment to forward command posts to support operations without significantly reducing the quality of support provided at the battalion dispensary.

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SECTION II

OBSERVATIONS (LESSONS LEARNED)

17  
A. (U) PERSONNEL:

1. Posthumous Awards:

a. ITEM: Posthumous Awards: Posthumous awards have been arriving in CONUS in piecemeal manner causing much unnecessary emotional strain on the next of kin.

b. DISCUSSION: A system needs to be established whereby all awards may be presented to the next of kin on one occasion. This will require a control system that will indicate not only what awards are being submitted posthumously, but will also indicate what awards have been previously submitted by the unit through channels and unheard of since. This would cover those awards pending at higher headquarters, those approved at higher headquarters, and those lost in distribution before reaching the unit.

c. OBSERVATION: It is recommended that a system be adopted Army-wide whereby a letter of transmittal will accompany each posthumous award sent forward through intermediate headquarters to the final approving authority stating what awards are attached and what awards are still pending at higher headquarters. This letter will adequately solve the problem of consolidating an individual's awards for one presentation. This battalion has adopted this system and found it effective.

2. Special Service Accountability and Supply Procedures:

a. ITEM: Special service accountability and supply procedure requests.

b. DISCUSSION: The normal method of controlling special service accountability and supply requests through a company special services officer has proven to be ineffective except when this officer is also the company supply officer. Aviators who attempt to function in this position are generally unavailable during normal duty hours because of flying requirements. The battalion and several of the companies have made the supply officer responsible for special service supplies with gratifying results.

c. OBSERVATION: Recommend the companies merge special service responsibilities with the supply officer's responsibilities. This policy should prove to be much more expeditious and effective for long range program planning.

B. (C) OPERATIONS:

1. Control of Artillery Fire:

a. ITEM: Control of artillery fire during airmobile operations.

b. DISCUSSION: It is standard operating procedure in this

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battalion that the ground unit commander or his representative, an artillery liaison officer, and the air liaison officer be aboard the command and control helicopter during the conduct of airmobile operations. This SOP provides a representative immediately available to the air mission commander, from all forces involved in the operation, for coordination and decision making as required. The artillery liaison officer is required to have complete knowledge and control of all artillery fires into the operational area. On several occasions, artillery fire has been observed by the air mission commander that endangered the airmobile forces. These fires were conducted without coordination with the airmobile force commander. This failure to coordinate artillery fire could have caused the loss of lives and equipment.

c. OBSERVATION: All artillery fires should be coordinated with the airmobile force commander. The airmobile force commander should be notified prior to the delivery of non-scheduled fires. If the artillery has priority over the airmobile operation, alternate flight routes can be used to and from the landing zones.

2. Command relationship:

a. ITEM: Aviation command relationship.

b. DISCUSSION: On several occasions this battalion has controlled battalion size operations utilizing lift helicopter companies not organic to the battalion. On occasions, a late attachment of these companies has required a fragmentary briefing prior to execution of a mission.

c. OBSERVATION: Aviation command relationships should be established early enough to facilitate coordination and tactical execution.

3. Pick-Up Zones:

a. ITEM: Slow troop loading in pick-up zones.

b. DISCUSSION: Slow troop loading has required that lift helicopters spend excessive time in pick-up zones. This problem has been especially evident when this battalion has been supporting new units. Excessive time in the pick-up zone requires a change in the planned sequence of events. Helicopters are especially vulnerable to enemy fire when on the ground. Excessive time spent in the pick-up zone increases this vulnerability to enemy fire. This battalion has made its pathfinder detachment available to new units within the III Corps, to conduct pick-up zone training. This training is now in progress.

c. OBSERVATION: Units scheduled for deployment to Vietnam should conduct pick-up zone training. Units presently in Vietnam should conduct pick-up zone training with emphasis on reduction of loading time.

4. Low Level Navigation:

a. ITEM: Low level navigation to landing zones.

b. DISCUSSION: Low level navigation over rice paddy and

CONFIDENTIAL  
14

CONFIDENTIAL

19  
jungle terrain is quite difficult. This difficulty, on occasions, has been the cause of flights making go-arounds at landing zones. Because of the failure of the flight leaders to properly identify the landing zone, a go-around is made which places the formation in an extremely vulnerable position and loses the element of surprise. Direction from the command and control aircraft, when available, will permit the flight to successfully navigate to the landing zone. This technique maintains surprise all the way into the landing zone. A second method would be for the flight leader to climb to 100 to 200 feet absolute altitude just prior to the landing zone. This allows the flight leader to identify the landing zone prior to touchdown.

c. OBSERVATION: In order to assure landing on selected landing zones during low level approaches, helicopter flights should either be directed by a command and control aircraft or should ascend to 100 to 200 feet absolute altitude just prior to arrival in the landing zone.

## 5. Night Operations:

a. ITEM: Night heliborne combat operations.

b. DISCUSSION: During this quarterly reporting period, this battalion controlled one night heliborne combat assault. Two significant lessons were learned. First, it is advisable to conduct a night reconnaissance of flight routes and aircraft control points. This reconnaissance of flight routes would reveal control points that would be visible from the air at night. One method to identify points used by this battalion was to use a flight path that carried the aircraft over a lighted compound. In addition the compound lighted their helipad so it would serve as an aircraft control point. During the conduct of the operation other readily identified points were noted that could have been used as control points. A night reconnaissance would have revealed these points and they could have been brought out in the operation briefing.

The second lesson learned was the necessity for a easily recognized method of landing zone marking. The operational area was illuminated by flares dropped from an Air Force flare ship. In addition, this battalion used a search light mounted in the door of an armed UH-1C, to mark the LZ. White smoke was dropped as a LZ mark. The smoke was illuminated by the search light and the air dropped flares. The crew chief in each helicopter was given a battery powered helipad light and this light was placed outside the helicopter upon the first landing in the LZ. Subsequent approaches into the LZ were made to these lights. This system of LZ marking proved very effective.

c. OBSERVATION: A night reconnaissance should be made prior to executing a night heliborne combat assault operation. Methods of marking LZ's for night operations should be continually tested. Consideration should be given to the development of a munition to be used for marking touchdown points in LZ's for night operations.

## 6. Helicopter Fire Teams:

a. ITEM: Use of helicopter fire teams.

b. DISCUSSION: It has been noted, by observation aircraft

CONFIDENTIAL

CONFIDENTIAL

pilots of this unit, that numerous lucrative targets are found in areas that are out of range of friendly artillery. In these areas the enemy is permitted to move freely knowing that he is out of range. On-call helicopter fire teams could be used effectively to fill the void left by artillery. These fire teams should be readily available for use by the pilot of the observation aircraft.

20

c. OBSERVATION: Helicopter fire teams on a stand-by status should be immediately responsive to observation aircraft pilots' sightings of enemy activity. A published radio frequency should be available for such requests for helicopter fire team assistance. The coordinated efforts of the observation aircraft and helicopter fire teams would bring the war to the enemy and prevent unmolested enemy movement outside artillery range.

#### 7. Airmobile Techniques and Procedures:

a. ITEM: Coordination of airmobile techniques and procedures.

b. DISCUSSION: Airmobile operations in the Republic of Vietnam necessitate a thorough coordination and understanding of airmobile techniques and procedures by the supporting aviation unit and supported ground unit. Supported units, especially new units in-country, have a very limited knowledge of airmobile operations and procedures. The 1st Aviation Brigade Handbook, which outlines airmobile techniques, procedures, and guidance, would be a tremendous aid to the supported ground unit.

c. OBSERVATION: Recommend that the 1st Aviation Brigade publish and distribute copies of the 1st Aviation Brigade Handbook to all units supported by the 1st Aviation Brigade.

#### 8. Multiple Lifts:

a. ITEM: Multiple lifts into a landing zone.

b. DISCUSSION: When the schedule of multiple lifts by one assault helicopter company into a single LZ becomes habitual, the enemy tends to congregate and deliver heavy accurate fire along the PZ-LZ route.

c. OBSERVATION: It should become standard practice to use more than one assault helicopter company to move large numbers of troops, so as to minimize the number of lifts, or make the ground commanders aware of the danger and have close multiple LZ's. It should be standard practice, in the event a single LZ must be used, to vary entry and departure routes both by direction and altitude.

#### 9. Use of Brigade Aviation Personnel:

a. ITEM: Efficient utilization of brigade aviation personnel.

b. DISCUSSION: The Brigade Aviation Officer should perform his function as a special staff officer to the Brigade Commander, and should not be relegated to the job of an S-3 Air Officer. The S-3 Air Officer should have the responsibility of requesting the army aviation support required by the ground tactical plan developed by the ground commander acting upon the advice of the Brigade Aviation Officer. The plan of em-

16  
CONFIDENTIAL



# CONFIDENTIAL

21  
ployment of the supporting aviation unit should be finalized by the time the supporting aviation unit arrives for final coordination. This cannot be accomplished if the Brigade Aviation Officer is used as an ICH scheduler or operator.

c. OBSERVATION: The Brigade Aviation Officer, if used in his proper position as special staff officer, will give the ground commander that expert advice so necessary in planning an airmobile operation.

## 10. Landing Zone Security:

a. ITEM: Landing zones secured by mechanized units.

b. DISCUSSION:

(1) Mechanized infantry units, on occasions, have reported that landing zones were secure when in fact the LZ had been neither checked for mines, nor had it been thoroughly cleared of enemy. As a result, aircraft have been fired upon from close range on short final and take-off, indicating personnel in APC's had not dismounted and swept the area.

c. OBSERVATION: Mechanized infantry units should dismount their vehicles and thoroughly sweep an area to be designated a secure LZ. If not classed as secure, the mechanized unit commander should coordinate directly with the airmobile commander to provide for gunship suppression into the proposed landing zone. This action will weaken enemy reaction to the landing and will tend to indicate, by obtaining secondary explosions, the presence of mines.

## 11. Landing Close to Tree Lines:

a. ITEM: Landing zone landings close to tree lines.

b. DISCUSSION: The decision to land a helicopter formation close to a tree line should be dictated by available intelligence of the particular area.

c. OBSERVATION: When making assaults into known Viet Cong strongholds, consideration should be given to the possibility of claymore or other types of mines being placed in tree tops and on the ground in LZ's.

## 12. Use of Smoke:

a. ITEM: Use of smoke for marking.

b. DISCUSSION: Throughout the 1st Aviation Brigade area of influence, different colors of smoke have a meaning; enemy fire, a LZ mark, or a pre-mark. Units within the 1st Aviation Brigade area are not standardized as to the exact meaning of different colors of smoke.

c. OBSERVATION: Recommend that color smoke markings be standardized in their meaning. This would offer an alternate means of conveying information from the ground units to the aircraft supporting an operation.

# CONFIDENTIAL

*CONFIDENTIAL*

13. Flight Standardization:

a. ITEM: Running take-offs are not considered applicable to UH-1 type aircraft.

b. DISCUSSION: In one unit of this battalion, two aircraft suffered major damage as a result of attempted running take-offs while over maximum gross weight. One accident was in February and the other was in December. Neither accident investigation divulged the fact that a UH-1 running take-off is not considered safe because an UH-1 will hover in ground effect and will make a normal take-off with the maximum safe load. In June 1966, a letter from USAFAR emphasized these facts.

c. OBSERVATION: That running take-offs not be attempted with the UH-1 type aircraft except in emergency situations and then only with sufficiently cleared area.

c. (U) TRAINING:

1. KM-47 Line Dispensing System.

a. ITEM: KM-47 training.

b. DISCUSSION: The KM-47 requires an involved and exacting electrical check during preparation for employment. The loading of the 540 pound M-3 cannister requires ground handling equipment and skilled operator personnel. The first lot of M-2 mine cannisters contains a higher than normal percentage of faulty release mechanisms. Because of the intricacies of the system, cadre personnel were given classes by representatives of Picatinny Arsenal and the Air Force provided instructors in the use of the BJ-1 bomb loader.

c. OBSERVATION: Because mission success is predicated on skilled maintenance and operator personnel, cadre personnel trained by Picatinny Arsenal should be employed against initial operational requirements. Extreme care must be used when planning and deploying the KM-47 system. Exact training is a continuing requirement.

2. Aircraft Commander and Pilot Training:

a. ITEM: Aviator training.

b. DISCUSSION: Newly assigned aviators are given in-country orientation flights before being released for operational missions. The aviator is then scheduled on general support missions if operational commitments permit. This allows the aviator to be gradually phased into combat conditions. On combat assaults, the aviator is usually assigned a mission with one of the more experienced aviators. When it is determined that the aviator is qualified and there is a need, the unit commander appoints the aviator as aircraft commander.

c. OBSERVATION: Newly assigned aviators are trained by the more experienced aviators; therefore, experience is not lost by the continuing rotation of aviators.

*CONFIDENTIAL*

CONFIDENTIAL

3. Decca Training:

a. ITEM: Decca navigation system training.

b. DISCUSSION: A training program was established to qualify all airmobile mission commanders, section leaders, and selected aviators in the operation and employment of the Decca Navigation System. The Decca Company provided technical representatives for the initial training. The company then appointed Decca instructor pilots to continue the training within the unit.

c. OBSERVATION: The Decca Navigation System provides the battalion with a positive navigation capability for airmobile operations during night and marginal weather conditions. The appointment of Decca instructor pilots in each unit, will provide a means of training newly assigned aviators in the system.

D. (C) INTELLIGENCE:

1. Photo Coverage of Landing Zones.

a. ITEM: Photo coverage of landing zones.

b. DISCUSSION: Mission notification lead time for airmobile operations, both company and battalion, has been steadily dropping with some request lead times down to sixteen hours. This does not allow time for aerial photos to be obtained prior to the mission execution.

c. OBSERVATION: A polaroid camera can fill this gap and is highly recommended for landing zone photo coverage. Pictures can be taken during the reconnaissance phase of the coordination with the supported ground units, and later shown to lead aircraft commanders during the mission briefing.

2. Hot Landing Zones:

a. ITEM: Hot landing zones.

b. DISCUSSION: An increase in the number of aircraft taking hits has been noted during the last three months. These hits have normally been taken during the second and subsequent lifts into the same landing zones on company controlled operations.

c. OBSERVATION: During the coordination phase of the mission with the supported ground unit, alternate landing zones and approach routes should be selected, and most important, used during the subsequent lifts as a preventative rather than a reactive consideration.

3. Classified Information Security:

a. ITEM: Classified information security.

b. DISCUSSION: During recent months, an unfavorable trend has been noted in the amount of classified information being discussed at bars, in clubs and over non-secure circuits. One individual was stopped

CONFIDENTIAL  
19

*CONFIDENTIAL*

during a telephone conversation when the information he was about to give was of a classified nature.

c. OBSERVATION: Some personnel in Vietnam are not aware of the seriousness and possible consequences of discussing classified information over non-secure circuits and in non-secure areas. The Viet Cong have many agents, some not by choice, but due to pressure on relatives. These persons are able to understand English as well as any American and the enemy has the capability to monitor telephone and radio conversations. A vigorous program must be initiated to re-emphasize the urgent need for classified information control. Only personnel with a need-to-know should be placed on access rosters.

E. LOGISTICS:

1. Prestock Point Operations:

a. ITEM: Prestock point operations.

(1) The 145th Cbt Avn Bn and III Corps Advisory teams continue to support five III ARVN Corps Prestock Points (PSP'S). During the reporting period the 145th Cbt Avn Bn was relieved of the responsibility for the operation of three PSP's as follows:

(a) Phu Loi - Mission was assumed by 1st Infantry Division.

(b) Tay Ninh - Mission was assumed by 196th Light Infantry Brigade.

(c) Hon Quan - Mission has not been assumed by any American unit.

(2) Efficient, safe operation of the prestock points is beyond the capabilities of the 145th Cbt Avn Bn and III Corps Advisory teams. These organizations do not have the necessary personnel, materials handling equipment, and POL dispensing equipment to support these requirements, which are continuously increasing as new aviation units arrive in RVN.

(3) 12th Cbt Avn C has developed a plan to assign the responsibility for operation of prestock points to major ground units. This plan has received the approval of HQ, II FFV.

b. OBSERVATION:

(1) That the 12th Group plan for assigning the responsibility for operation of prestock points to major ground units should be implemented as early as possible.

(2) That the units assigned the responsibility for operating prestock points should be given the mission of providing simultaneous rapid refueling for 16 aircraft with two hours notice.

2. Aircraft Parking Revatments:

# CONFIDENTIAL

a. ITEM: Aircraft parking revetments.

b. DISCUSSION:

25 (1) Aircraft parking revetments currently being utilized by the 145th Cbt Avn Bn are constructed of sand bags retained by salvaged USF CEU bomb containers. These revetments are acceptable, but there are several serious shortcomings inherent to this type construction. Among these shortcomings are: constant maintenance of revetments as sand bags become old and decayed; inability to easily reposition revetments; excessive space occupied by this type construction; excessive labor required to fill sand bags, and excessive numbers of sand bags being required to support this type construction.

(2) A trial revetment was constructed from Ground Mat FSN 5680-B00-0002 reinforced with steel fence pickets. This revetment proved to eliminate most of the deficiencies noted in paragraph 1, above, and plans have been made to construct revetments required at project 521 from these materials.

c. OBSERVATION: That permanent, maintenance free aircraft parking revetments can be constructed from Ground Mat FSN 5680-B00-0002 and steel fence pickets.

## 3. Aircraft Technical Supply Operations:

a. ITEM: Shortage of skilled personnel.

b. DISCUSSION: A shortage of personnel who are skilled in supervision and operations of technical supply activities exists, with no forecast for change.

c. OBSERVATION: Aviation company and T3 detachment operations have been consolidated and use authorized stockage list operations only. This has enabled the units to operate a formally operated single supply system with built-in checks and balances.

## 4. Technical Supply Follow-Up Action:

a. ITEM: Limited knowledge of outstanding requisition status.

b. DISCUSSION: The mix of automated and manual requisition handling in this command has built-in voids. It was found that all units had large quantities of requisitions outstanding for a long time. No sure follow-up program existed.

c. OBSERVATION: It was apparent that a solution was necessary if parts were to be obtained in minimum acceptable quantity. Individual unit lists of outstanding requisitions are now submitted to their DSU on a monthly basis for reconciliation. This system enables all concerned to review monthly and affect corrective action on a scheduled basis.

## 5. Critical Shortage of T-53 Engines:

a. ITEM: The T-53 turbine engines are a continuing EDP subject.



*CONFIDENTIAL*

b. DISCUSSION: UH-1 EDP rates have been high due to T-53 engine shortages throughout this reporting period. Engines have been changed on the average of about 700 hours for various failures or out of limit conditions.

c. OBSERVATION: An intensive program has been initiated by this headquarters to cause all responsible personnel to observe operating limitations and to insure extra preventative maintenance measures and inspection requirements, in an effort to extend the engine life.

6. Requisitions:

a. ITEM: Requisitions and follow-ups.

b. DISCUSSION: Requisitions and follow-ups are being returned with appropriate status by stock control at Long Binh. Coordination with the 506th Field Depot in Saigon shows that a majority of requisitions have not reached their activity. Records in Saigon stock control indicate that some equipment was shipped to Long Binh, but the unit never received it. Long Binh has cancelled requisitions for reasons believed to be inadequate.

c. OBSERVATION: A meeting of all supply personnel using AT 8033 with Long Binh as requisitioner is necessary. Personnel from stock control should be present to spell out present procedures and solutions to supply problems.

7. Oil Consumption:

a. ITEM: Excessive oil consumption in O-1 aircraft.

b. DISCUSSION: During the past two months, the 74th Reconnaissance Airplane Company has had numerous aircraft down for excessive oil consumption.

c. OBSERVATION: The cylinder life is reduced due to the high mineral content of the oil. To help eliminate this problem the following program has been initiated.

(1) Change oil every 12½ hours.

(2) Change carburetor air box screen after every flight.

(3) Eliminate carburetor heat check on run-up procedures.

8. Mark VIII Sights:

a. ITEM: Improve armament systems.

b. DISCUSSION: During the past two months, the 74th Reconnaissance Airplane Company has been testing the Mark VIII Sight.

c. OBSERVATION: By utilizing the mark VIII sight on the O-1 aircraft, the existing armament system has been greatly enhanced.

*CONFIDENTIAL*

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The Mark VIII sight has proven to be accurate on enemy targets through forty-eight operational tests. The average range dispersion was ten meters,

F. (C) SIGNAL:

1. Land Line Communications:

a. ITEM: Land line communications.

b. DISCUSSION: During this quarter, as in the two previous quarters, the telephone service and land line communications between this battalion and its next higher headquarters, 12th Combat Aviation Group, have been completely inadequate. In order to reach 12th Group, it is necessary to go through four (4) switchboards. In the past, the Bien Hoa LD switchboard has been so saturated during peak periods that operators have handled as many as 300 calls per minute. This load is due to shortage of larger type switchboards. However, "A" Company of 44th Signal Battalion is in process of expanding its facilities which promise better service. The need for a point-to-point circuit between this battalion and 12th Group still exists. Likewise, there is a need for a point-to-point sole user circuit between the 145th Cbt Avn Bn and its newly assigned company, the 335th AML. Again, additional circuits are not available to provide this service.

c. OBSERVATION: Signal support, personnel and equipment are not keeping pace with the troop build-up.

2. Command Communications:

a. ITEM: Command communications package.

b. DISCUSSION: There has been a need for a command communications package of versatile FM and single side-band light weight radios for use at forward area CP's. Recent information received from 12th Group indicates that such a package has been assembled and consists of six different types of portable radios for use by airmobile units deployed in forward areas for extended field duty. This package would drastically reduce the need for heavy-duty power supplies needed to operate MRC-95 SSB radios.

c. OBSERVATION: Issue and supply of new tactical commo equipment has not been adequate to meet urgent requirements demanded by airmobile units.

3. Airborne Command Consoles:

a. ITEM: Airborne command consoles.

b. DISCUSSION: The ASC-6 consoles presently installed in command and control aircraft assigned to this battalion are equipped with the ARC-44 type FM radios. Due to frequency range limitations and different inherent design characteristics, the ARC-44 is incapable of netting with the new VRC-12 FM ground radios used by supporting ground units. This problem has resulted in many unauthorized MWO's and non-standard installations of field radios in Army aircraft. The ASC-10 and ASC-122 are replacement consoles for the obsolete ASC-6. However, none are available.

*CONFIDENTIAL*

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c. OBSERVATION: Manufacture and issue of new equipment is inadequate to meet troop needs.

4. Avionics Test Equipment:

a. ITEM: Avionics test equipment.

b. DISCUSSION: To this date there have been no in-country facilities for repair of avionics test equipment. In practically all instances, the avionics detachments have turned in the equipment through their proper maintenance channels only to have it evacuated out of country to Okinawa or to CONUS. After waiting several months for return, tracer action has been initiated with no avail. Several pieces of this expensive equipment have been lost or misrouted in this process. Available information indicates that two mobile test equipment vans are enroute to Vietnam but have not yet arrived.

c. OBSERVATION: It is evident that repair of avionics test equipment was not included in the overall maintenance support plan for Vietnam or if there was such a system, it has proved to be inadequate.

5. ARC-54 Radios:

a. ITEM: Installation of AN/ARC-54 radios with FM homing equipment.

b. DISCUSSION: Due to the dense jungles in the Republic of Vietnam, friendly ground forces often become disorientated and request assistance from observation aircraft to establish their location. O-1 aircraft presently in Vietnam are equipped with the ARC-44 radio which will not net properly with the new series of ground radios.

c. OBSERVATION: The AN/ARC-54 radios with FM homing equipment should be installed in all O-1 aircraft destined to be used in the Republic of Vietnam.

6. Personnel Shortage:

a. ITEM: Shortage of avionics personnel.

b. DISCUSSION: For the past year, two avionics detachments have jointly provided maintenance support for three AML helicopter companies assigned to this battalion. This system has proved to be inadequate and has caused the quality of maintenance to decline. A recent study, pointing out the weakness in this system, was submitted to higher headquarters. It is recommended that a separate detachment be assigned to the third company or the two detachment now performing the maintenance be augmented with additional personnel to support approximately ninety aircraft.

CONFIDENTIAL



CONFIDENTIAL

c. OBSERVATION: The number of assigned avionics trained technicians has not been adequate to provide the necessary aviation electronics maintenance support for assigned aircraft.

79  
G. (U) SAFETY:

1. Tail Rotor Failures:

a. ITEM: UH-1 tail rotor failures.

b. DISCUSSION: Tail rotor failures have plagued the battalion during this quarter. It has become apparent that these failures, for the most part, are pilot induced.

c. OBSERVATION: Pilots must be aware of the hazards of exaggerated flares in close proximity to the ground and of the degree of attention necessary to keep out of contact with trees and stumps when entering a landing zone.

2. RPM Control:

a. ITEM: Accidents involving loss of RPM.

b. DISCUSSION: Approximately 20% of the accident losses are caused by loss of RPM on take-off. These accidents appear to have the following in common: (1) high ambient temperature; (2) high gross weight; (3) obstructions in take off path that caused loss of effective ground cushion; (4) down wind take-offs.

c. OBSERVATION: Pilots and especially supervisory personnel must be constantly aware of the problems in selecting pick-up zones and determining loads to be carried. In addition, each aircraft should be checked, through use of the go-no-go system, on every take-off, with allowance being made for down wind conditions and obstructions in take-off path. If the tactical situation dictates all other factors, it may be that the gross weight of the helicopter is the only factor that can be controlled. Aircraft loading must be planned to be within flyable limits.

H. (U) MEDICAL:

1. Consolidation of Medical Support:

a. ITEM: Although consolidation of medical support has proven to be very successful in achieving its purpose -- to provide a higher standard of aviation medical support -- it is still lacking much of the equipment and space necessary for providing the support which the medical units are capable of. The greatest deficiency in the medical support capabilities is the lack of adequate space for medical facilities. An additional 20 x 30 foot building is planned in order to correct this problem. The lack of X-ray equipment is the second most important deficiency. Without it we cannot complete Class III flight physicals nor can we properly evaluate injuries in some cases. Although there are several facilities in the area where X-rays can be obtained, they are receiving such a great work load that it is difficult to schedule

CONFIDENTIAL  
25

UNCLASSIFIED

X-rays for anything other than emergencies. It is recommended that construction of the proposed additional building be expedited. This building will house the X-ray equipment, dental facilities and battalion surgeon's staff. X-ray equipment is now on requisition and should arrive in the near future.

b. OBSERVATION: The consolidation of medical units within the 145th Cbt Avn Bn has resulted in the overall improvement of aviation medical support. However, there is still considerable room for improvement. This could be accomplished to a large degree through the construction of the proposed additional building and the acquisition of X-ray equipment. This dispensary is the first of its kind in the Republic of Vietnam and due to its success in improving aviation medical support, others are already planned.

## 2. Water Supply:

a. ITEM: The water supply.

b. DISCUSSION: The water supply point for the 145th Cbt Avn Bn is now utilizing automatic chlorination equipment. There are also provisions for "batch" chlorination of the water in the event that the automatic chlorinators should become inoperable. An employee of PA&E conducts regular tests on the chlorine content of the water to insure that the chlorine content is adequate to insure potability. The battalion surgeon also makes frequent visits to the water point to double check the attendants findings. When this water point was completed, there was considerable difficulty involved in having the water confirmed as potable water. Most of the difficulty seemed to revert to the fact that civilian employees and contractors do not seem to be kept informed of regulations concerning the construction, operation and maintenance of water points for potable water.

c. OBSERVATION: All civilian contractors involved in the construction of water supply points should be kept well informed of all regulations governing the construction, operation and maintenance of such water supply points.

## 4. First Aid Instruction:

a. ITEM: First aid instruction.

b. DISCUSSION: During the past few months we have been conducting first aid instruction lectures for aviators, crew chiefs and gunners of the battalion. These personnel are subject to encounter an emergency quite frequently and a basic knowledge and understanding of first aid may result in saving a mans life.

c. OBSERVATION: Aviators, crew chiefs, and gunners are frequently subject to encounter an emergency in which the life of another man or their own life may be at stake. A basic understanding of first aid techniques of applying it could well be the deciding factor which determines whether the man lives or dies. With this thought in mind, it is evident that first aid instruction is essential.

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PART II RECOMMENDATIONS

A. (U) PERSONNEL: A plan be put into effect so that all posthumous awards be presented to the next of kin on one occasion.

B. (U) OPERATIONS:

3/ 1. The necessity to train units in CONUS on the importance of rapid loading of troops in airmobile operations.

2. A munition be developed that can adequately mark LZ touchdown points during night combat assaults.

C. (U) TRAINING: Pilot training at the aviation schools should emphasize low-level navigation.

D. (U) INTELLIGENCE: None.

E. (U) LOGISTICS: None.

F. (U) SIGNAL: None.

G. (U) SAFETY: None.

H. (U) MEDICAL: None.

"FIRST IN VIETNAM"

*Howard M. Moore*  
HOWARD M. MOORE  
LTC Artillery  
Commanding

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- 1 copy thru channels to ASCFOR Washington D.C. 20310
- 2 copies thru 12th Cbt Avn Gp, APO 96491, to ASCFOR Washington D.C. 20310
- 2 copies to USARPAC
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AVGC-SC(7 Feb 67)

1st Ind

SUBJECT: Operational Report-Lessons Learned (ORLL) for Period Ending  
31 January 1967 (RCS CSFOR-65)

33

HEADQUARTERS, 12TH COMBAT AVIATION GROUP, APO 96491 12 March 1967

TO: Assistant Chief of Staff Force Development  
Department of the Army  
Washington, D.C. 20310

1. Two copies of the 145th Combat Aviation Battalion's Operational Report-Lessons Learned (ORLL) (RCS CSFOR-65) for period ending 31 January 1967, is forwarded in compliance with USARV Regulation 1-19, dated 8 February 1967.

2. Comments are included on observation and recommendations made by the battalion commander:

a. Personnel:

Reference observation 1, page 13. A system for collecting and simultaneously presenting all posthumous awards to the next of kin was announced by letter, Headquarters USARV, 27 November 1966, subject: Posthumous Awards, and letter, Headquarters 1st Aviation Brigade, 13 December 1966, subject: Posthumous Awards. This system is in effect in 12th Combat Aviation Group and is presumed to be operating effectively throughout USARV.

b. Operations:

(1) The technique of ascending to 100-200 feet (comment 4, page 14) is not a safe maneuver when making an assault. This maneuver causes loss of surprise and causes the flight to be in an extremely vulnerable position to enemy fire. Highly recommend that the command and control aircraft be utilized to give heading and distance to touchdown for lead aircraft. These simple and concise transmissions have proven adequate during numerous company and battalion assaults.

(2) The 1st Aviation Brigade Handbook (page 16) is distributed to supported units and has alleviated many potential problem areas. Additionally, the supported ground commander is informed of new techniques and procedure as they are developed.

(3) The comment on page 16 as pertains to the Infantry Brigade aviation personnel is a valid one. However, the Brigade Commander has the prerogative to use assigned personnel in the manner to best accomplish his mission.

(4) Signal Officer II Field Force, Vietnam, is preparing a letter requiring standardization for use of smoke (Item 12, page 17) under existing USARV directive.

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AVOC-SA (7 Feb 67)

12 March 1967

SUBJECT: Operational Report-Lessons Learned (ORLL) for Period Ending  
31 January 1967 (RCS CSFOR-65)

c. Training and Organization:

Concur in the need for CH-47 aviators to have a standard instrument card (Item 5, page 13). Experience in Vietnam dictates that all CH-47 aviators have a need for an instrument card due to the number of missions which are conducted under instrument conditions. However, due to the heavy operational commitments, recommend that the instrument qualification be conducted in CONUS rather than in RVN.

d. Intelligence: None

e. Logistics: None

FOR THE COMMANDER:

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nc

  
SAMUEL A. CLEMENT  
CPT, AGC  
Asst Adjutant

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